

**Durgesh Chopra**  
212-653-8998  
Durgesh.Chopra@evercoreisi.com

**Jeffrey Qiu**  
212-446-5626  
Jeffrey.Qiu@evercoreisi.com

**Greg Gordon, CFA**  
212-653-9000  
greg.gordon@evercoreisi.com

## Water Utilities Q2 2019 Earnings Recap

The sector continues to look expensive to us on both an absolute and relative basis. Water utilities in our coverage universe are currently trading at a 30x P/E multiple on '21E EPS versus our fair value estimate for the space at 23x (58% / 75% premium to the electric utilities / S&P 500, respectively, versus the 10-year average of ~35% / ~50% based on a one-year forward P/E). 2Q19 earnings results were a mixed bag for the water utilities; see our key takeaways by company below.

**AWK (\$108PT, Outperform).** 2Q19 EPS of \$0.94 was a penny higher than consensus.

- The quarter benefitted from ~\$0.10 EPS uplift from one-time items (land sales etc) offset by wet weather impact of \$0.05.
- FY '19 adjusted EPS guidance range of \$3.54-\$3.64 was reaffirmed. The long-term EPS CAGR is still projected to be in the top half of the 7-10% range anchored off '17 adjusted EPS of \$3.03, with dividends expected to grow at the high end.
- Capex guidance for the year was raised \$100mm to \$1.9bn, primarily driven by regulated acquisitions.
- We continue to struggle with the valuation for water utilities in our coverage universe. Despite a NTM total return proposition of -9% under our base case scenario (group average is around -11%), we think AWK offers the most attractive risk / reward proposition among our coverage universe over the long term, remain **Outperform**.

**AWR (\$60PT, Underperform).** AWR reported 2Q19 adjusted EPS of \$0.64 vs consensus of \$0.56.

- Quarterly dividend was increased 10.9% and long term they are now targeting more than 7% compounded annual dividend growth (vs more than 6% previously)
- Company's proposed water rate case settlement was approved by the commission; gross margin is expected to increase by \$7mm / \$10mm / \$12mm in '19 / '20 / '21, respectively.
- The commission issued a proposed decision in the ongoing electric rate case approving the settlement reached between the company and various parties. If approved, the rate increase would be retroactive, beginning 1/1/18.
- Reaffirmed ASUS 2019 EPS guidance range of \$0.43 to \$0.47, consolidated capex this year is still expected to be in the \$115mm to \$125mm range.
- We are raising our '19 / '20 / '21 EPS forecast to \$2.00 / \$2.10 / \$2.25, driven by better than expected results YTD.
- Raising target price from \$57 to \$60, remain **Underperform**.

**CTWS (\$70PT, In Line).** CTWS reported 2Q19 EPS of \$0.48 vs prior year EPS of \$0.39.

- The company filed an updated settlement agreement related to the SJW / CTWS merger application in CT. The one key addition to the previous application filed on 4/3/19 was that of rate credits totaling \$300k/yr for a period of ten years, starting with the next general rate case (~\$0.01 annual EPS impact before offsets). The agreement provides the companies with the opportunity to offset these credits with merger-related cost savings.
- SJW and CTWS expect the transaction to close in the third quarter of 2019, be neutral to slightly dilutive in the first full year, and be high-single-digit EPS accretive in the second full year post-closing.
- We are maintaining our \$70 target price and **In Line** rating.

**CWT (\$46PT, In Line).** CWT reported 2Q19 EPS of \$0.35 vs consensus of \$0.38.

- They are in settlement discussions in their ongoing rate case in CA. Recall they had filed their GRC in CA on 7/2/18, requesting \$828.5mm in capital spend from '19-'21. The rate increase application requests \$50.7mm / \$31.5mm / \$33.0mm revenue increases for years '20-'22, respectively. The company expects a final decision by YE '19 with rates effective 1/1/20.
- The company is dealing with a new variable: Public Safety Power Shutoffs (PSPS). Electric companies have been authorized to shut off the grid in addressing wildfire risk. They have redirected staff resources towards internal operational / wildfire readiness training, as well as hardening of their system for wildfires. They expect \$2-3mm in equipment leases costs in 2H19 (59 generators for wildfire response)
- CWT's cost of capital filing is due in March next year. Currently they are approved for an equity / debt layer of 53% / 46%, and an ROE / cost of debt of 9.2% / 5.5%, respectively.
- We are maintaining our \$46 target price and **In Line** rating.

**SJW (\$62PT, In Line).** SJW reported 2Q19 EPS of \$0.47 vs consensus of \$0.56. Excluding one-time items, second quarter adjusted EPS came in at \$0.58 versus \$0.72 in the prior year.

- The company filed updated settlement agreement related to SJW/CTWS merger application in CT. The one key addition to the previous application filed on 04/03/19 was that of rate credits totaling \$300k/yr for a period of ten years, starting with the next general rate case (~\$0.01 annual EPS impact before offsets). The agreement provides for the companies' opportunity to offset these credits with merger-related cost savings.
- SJW expects the transaction to close in the third quarter of 2019, be neutral to slightly dilutive in the first full year, and be high-single-digit EPS accretive in the second full year post-closing.
- They settled with the California Public Utilities Commission (CPUC) over past customer billing practices. If approved by the Commission, the company would pay ~\$2.1mm in one-time customer credits (\$0.06 EPS hit booked in Q2) and invest \$5.0mm in utility plant without seeking an investment return or rate recovery (<\$0.01 EPS hit).
- In Texas (which represents ~5% of total EPS) legislations SB-700 and HB-3542 will take effect 09/01/19: the former will allow water utilities to recover and earn a return on capex in-between rate cases (similar to DSIC/infrastructure surcharges mechanisms in other states); HB-3542 allows a utility in Texas to value acquired assets at fair market value for ratemaking purposes.
- We are maintaining our \$62 target price and **In Line** rating.

**WTR (\$37PT, In Line).** 2Q19 adjusted EPS of \$0.37 was largely in line with expectations and flat to prior year.

- The Peoples Gas acquisition is still expected to close in fall of this year. A settlement agreement has been filed with the administrative law judge with a recommended decision expected later this month, and a final PA commission order is expected in the fall. On the rate case front, a settlement agreement seeking \$59.5mm in gas rate increase is awaiting commission approval. New rates are expected to go into effect in October 2019.
- Potential acquisition of a PA-based wastewater operator DELCORA may be in the cards (~\$300mm rate base and ~\$0.03 EPS uplift, by our estimate).
- Repair tax pass-through could be pursued next year, and could be up to \$0.10 EPS accretive (\$2/sh or 5% valuation uplift).
- Long-term guidance is expected to be issued in December '19; we are maintaining our \$37 price target for WTR and **In Line** rating.

## Exhibit 1

**AWK Valuation Framework**

Scenario	EPS CAGR*	'21EPS	'20 P/E	Valuation	Tot. Return
Base Case	7.9%	\$4.10	26.5x	\$108	-9%
Bull Case	9.3%	\$4.32	27.8x	\$120	1%
Bear Case	7.0%	\$3.97	25.1x	\$100	-15%
*17 through '21					

**Valuation:** Our \$108 price target is 26.5x our FY '21 EPS estimate of \$4.10/share. That is a ~15% premium to our water utility average target multiple of 23x, due to the company's best-in-class earnings and dividend growth, as well as geographical / regulatory diversity. The latter not only minimizes regulatory risks, but also offers a competitive advantage to capitalize on industry consolidation opportunities, given AWK's presence in 16 states. Our bull case valuation of \$120 for AWK assumes growth in the upper half of their targeted 7-10% EPS growth guidance range and a 5% premium to a '21 P/E multiple of 26.5x. Our bear case valuation of \$100 assumes AWK can grow earnings at the low end of the targeted 7-10% growth range and we apply a 10% discount to a '21 P/E multiple of 26.5x.

Source: Evercore ISI Research

## Exhibit 2

**AWR Valuation Framework**

Scenario	EPS CAGR*	'21EPS	'20 P/E	Valuation	Tot. Return
Base Case	9.2%	\$2.25	26.5x	\$60	-27%
Bull Case	10.0%	\$2.30	27.8x	\$64	-23%
Bear Case	8.2%	\$2.19	25.1x	\$55	-33%
*18 through '21					

**Valuation:** Our \$60 price target is 26.5x our FY '21 EPS estimate of \$2.25/share. That is a ~15% M&A premium to our water regulated target multiple of 23x. Our bull case valuation of \$64 for AWR assumes they can grow EPS at 10% through '21 and trade at a 5% premium to our base case '21 P/E multiple of 26.5x. Our bear case valuation of \$55 assumes that they grow earnings at 6.5%, 100 bps lower than our base case and trade at 5% discount to our '21 base case P/E multiple of 26.5x.

Source: Evercore ISI Research

## Exhibit 3

**CTWS Valuation Framework**

Scenario	EPS CAGR*	'21EPS	'21 P/E	Valuation	Tot. Return
Base Case	7.1%	\$2.75	25.3x	\$70	2%
Bull Case	8.1%	\$2.83	26.6x	\$75	9%
Bear Case	6.1%	\$2.67	24.0x	\$64	-6%
*18 through '21					

**Valuation:** Our \$70 price target is 25.3x our FY '21 EPS estimate of \$2.75/share. That is a ~10% M&A premium to our water regulated target multiple of 23x. Our bull case valuation of \$75 for CTWS assumes they can grow EPS at 8.1% 100 bps higher than our base case forecast and trade at a 5% premium to our base case '21 P/E multiple of 25.3x. Our bear case valuation of \$64 assumes that they grow earnings at 6.1%, 100 bps lower than our base case and trade at 5% discount to our '21 base case P/E multiple of 25.3x.

Source: Evercore ISI Research

## Exhibit 4

## CWT Valuation Framework

Scenario	EPS CAGR*	'21EPS	'21 P/E	Valuation	Tot. Return
Base Case	8.7%	\$1.75	26.5x	\$46	-14%
Bull Case	9.7%	\$1.80	27.8x	\$50	-6%
Bear Case	7.7%	\$1.70	25.1x	\$43	-19%
*18 through '21					

Valuation: Our \$46 price target is 26.5x our FY '21 EPS estimate of \$1.75/share. That is a ~15% M&A premium to our water regulated target multiple of 23x. Our bull case valuation of \$50 for CWT assumes they can grow EPS at 9.7% 100 bps higher than our base case forecast and trade at a 5% premium to our base case '21 P/E multiple of 26.5x. Our bear case valuation of \$43 assumes that they grow earnings at 7.7%, 100 bps lower than our base case and trade at 5% discount to our '21 base case P/E multiple of 26.5x.

Source: Evercore ISI Research

## Exhibit 5

## SJW Valuation Framework

Valuation	Post Merger	No Merger	Base Case (a)	Valuation	Bull Case	Bear Case
<b>Consolidated 2021 EPS</b>	<b>\$2.55</b>	<b>\$2.30</b>		<b>Consolidated 2021 EPS</b>	<b>\$2.55</b>	<b>\$2.30</b>
Forward P/E Multiple	25.5x	25.5x		Forward P/E Multiple	26.5x	24.5x
<b>Implied Valuation</b>	<b>\$65.0</b>	<b>\$59.0</b>	<b>\$62.0</b>	<b>Implied Valuation</b>	<b>\$68.0</b>	<b>\$56.0</b>
Current Stock Price (07/25/19)	\$64.3	\$64.3	\$64.3	Current Stock Price (07/25/19)	\$64.3	\$64.3
<b>Price Appreciation</b>	<b>1.1%</b>	<b>-8.2%</b>	<b>-3.6%</b>	<b>Price Appreciation</b>	<b>5.8%</b>	<b>-12.9%</b>
<b>Dividend Yield</b>	<b>1.9%</b>	<b>1.9%</b>	<b>1.9%</b>	<b>Dividend Yield</b>	<b>1.9%</b>	<b>1.9%</b>
<b>Total Shareholder Return</b>	<b>3.0%</b>	<b>-6.4%</b>	<b>-1.7%</b>	<b>Total Shareholder Return</b>	<b>7.6%</b>	<b>-11.0%</b>

**Valuation:** Our base case valuation of \$62 is an average of our post-merger and no-merger valuations. Firstly, our \$65 post-merger valuation is based on a pro-forma FY '21 EPS estimate of \$2.55 and a 25.5x P/E multiple, which represents a ~10% M&A premium to our regulated water target multiple of 23.0x. Secondly, our no-merger valuation of \$59 is based on a standalone FY '21 EPS estimate of \$2.30 and a 25.5x P/E multiple. In our bull case of \$68, we assume that the merger goes through and assign a 1.0x higher P/E multiple vs. the base case. In our bear case valuation of SJW, we assume the merger is not consummated and assign a 1.0x lower P/E multiple vs. the base case.

Source: Evercore ISI Research

## Exhibit 6

**WTR Valuation Framework**

<b>SOTP Valuation (Base Case)</b>	<b>'21E</b>	<b>'21 P/E</b>	<b>Valuation</b>
Legacy WTR EPS	\$1.16	23.0x	\$27.00
Gas EPS	\$0.48	21.2x	\$10.00
	<u>\$1.65</u>		<u>\$37.00</u>
<b>SOTP Valuation (Bull Case)</b>	<b>'21E</b>	<b>'21 P/E</b>	<b>Valuation</b>
Legacy WTR EPS	\$1.16	24.1x	\$28.00
Gas EPS	\$0.48	22.3x	\$11.00
	<u>\$1.65</u>		<u>\$39.00</u>
<b>SOTP Valuation (Bear Case)</b>	<b>'21E</b>	<b>'21 P/E</b>	<b>Valuation</b>
Legacy WTR EPS	\$1.16	20.7x	\$24.00
Gas EPS	\$0.48	19.1x	\$9.00
	<u>\$1.65</u>		<u>\$33.00</u>

**Valuation:** Our \$37 target price is based on a SOTP valuation where we assign 23x P/E to earnings contribution from the legacy water business and ~21x to earnings from the gas segment. The 23x water P/E is in line with our water regulated peer average target multiple. The gas multiple of ~21x is also in line with current gas LDC trading valuation multiples. Our bull case valuation of \$39 assumes that both the water and gas segment trade at 5% premium to our base case scenario. Our bear case valuation of \$33 assumes 10% discount multiple to our base case scenario for both segments.

Source: Evercore ISI Research

**Risks.** Risks to our thesis include an unfavorable regulatory outcome leading to lower rate base growth and/or lower allowed or earned ROEs in ongoing and future rate cases. Other risks include exposure to unusual weather, impact of conservation awareness of customers and more efficient plumbing fixtures and appliances on water usage per customer, cyber security and water contamination.

## TIMESTAMP

(Article 3(1)e and Article 7 of MAR)

Time of dissemination: August 11 2019 08:52

## ANALYST CERTIFICATION

The analysts, Durgesh Chopra, Jeffrey Qiu, Greg Gordon, primarily responsible for the preparation of this research report attest to the following: (1) that the views and opinions rendered in this research report reflect his or her personal views about the subject companies or issuers; and (2) that no part of the research analyst's compensation was, is, or will be directly related to the specific recommendations or views in this research report.

## DISCLOSURES

This report is approved and/or distributed by Evercore Group LLC ("Evercore Group"), a U.S. licensed broker-dealer regulated by the Financial Industry Regulatory Authority ("FINRA"), and International Strategy & Investment Group (UK) Limited ("ISI UK"), which is authorised and regulated in the United Kingdom by the Financial Conduct Authority. The institutional sales, trading and research businesses of Evercore Group and ISI UK collectively operate under the global marketing brand name Evercore ISI ("Evercore ISI"). Both Evercore Group and ISI UK are subsidiaries of Evercore Partners Inc. ("Evercore Partners"). The trademarks, logos and service marks shown on this report are registered trademarks of Evercore Partners.

The analysts and associates responsible for preparing this report receive compensation based on various factors, including Evercore Partners' total revenues, a portion of which is generated by affiliated investment banking transactions. Evercore ISI seeks to update its research as appropriate, but various regulations may prevent this from happening in certain instances. Aside from certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Evercore ISI generally prohibits analysts, associates and members of their households from maintaining a financial interest in the securities of any company in the analyst's area of coverage. Any exception to this policy requires specific approval by a member of our Compliance Department. Such ownership is subject to compliance with applicable regulations and disclosure. Evercore ISI also prohibits analysts, associates and members of their households from serving as an officer, director, advisory board member or employee of any company that the analyst covers.

This report may include a Tactical Call, which describes a near-term event or catalyst affecting the subject company or the market overall and which is expected to have a short-term price impact on the equity shares of the subject company. This Tactical Call is separate from the analyst's long-term recommendation (Outperform, In Line or Underperform) that reflects a stock's forward 12-month expected return, is not a formal rating and may differ from the target prices and recommendations reflected in the analyst's long-term view.

**Applicable current disclosures regarding the subject companies covered in this report are available at the offices of Evercore ISI, and can be obtained by writing to Evercore Group LLC, Attn. Compliance, 666 Fifth Avenue, 11th Floor, New York, NY 10103.**

Evercore Partners and its affiliates, and I or their respective directors, officers, members and employees, may have, or have had, interests or qualified holdings on issuers mentioned in this report. Evercore Partners and its affiliates may have, or have had, business relationships with the companies mentioned in this report.

Additional information on securities or financial instruments mentioned in this report is available upon request.

## Ratings Definitions

### Current Ratings Definition

Evercore ISI's recommendations are based on a stock's total forecasted return over the next 12 months. Total forecasted return is equal to the expected percentage price return plus gross dividend yield. We divide our stocks under coverage into three primary ratings categories, with the following return guidelines:

**Outperform-** the total forecasted return is expected to be greater than the expected total return of the analyst's coverage universe

**In Line-** the total forecasted return is expected to be in line with the expected total return of the analyst's universe

**Underperform-** the total forecasted return is expected to be less than the expected total return of the analyst's universe

**Coverage Suspended-** the rating and target price have been removed pursuant to Evercore ISI policy when Evercore is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances.\*

**Rating Suspended-** Evercore ISI has suspended the rating and target price for this stock because there is not sufficient fundamental basis for determining, or there are legal, regulatory or policy constraints around publishing, a rating or target price. The previous rating and target price, if any, are no longer in effect for this company and should not be relied upon.\*

\*Prior to October 10, 2015, the "Coverage Suspended" and "Rating Suspended" categories were included in the category "Suspended."

**FINRA requires that members who use a ratings system with terms other than "Buy," "Hold/Neutral" and "Sell" to equate their own ratings to these categories. For this purpose, and in the Evercore ISI ratings distribution below, our Outperform, In Line, and Underperform ratings can be equated to Buy, Hold and Sell, respectively.**

### Historical Ratings Definitions

Prior to March 2, 2017, Evercore ISI's recommendations were based on a stock's total forecasted return over the next 12 months:

**Buy-** the total forecasted return is expected to be greater than 10%

**Hold-** the total forecasted return is expected to be greater than or equal to 0% and less than or equal to 10%

**Sell** -the total forecasted return is expected to be less than 0%

On October 31, 2014, Evercore Partners acquired International Strategy & Investment Group LLC ("ISI Group") and ISI UK (the "Acquisition") and transferred Evercore Group's research, sales and trading businesses to ISI Group. On December 31, 2015, the combined research, sales and trading businesses were transferred back to Evercore Group in an internal reorganization. Since the Acquisition, the combined research, sales and trading businesses have operated under the global marketing brand name Evercore ISI.

#### ISI Group and ISI UK:

Prior to October 10, 2014, the ratings system of ISI Group LLC and ISI UK which was based on a 12-month risk adjusted total return:

Strong Buy- Return > 20%

Buy- Return 10% to 20%

Neutral - Return 0% to 10%

Cautious- Return -10% to 0%

Sell- Return< -10%

For disclosure purposes, ISI Group and ISI UK ratings were viewed as follows: Strong Buy and Buy equate to Buy, Neutral equates to Hold, and Cautious and Sell equate to Sell.

#### Evercore Group:

Prior to October 10, 2014, the rating system of Evercore Group was based on a stock's expected total return relative to the analyst's coverage universe over the following 12 months. Stocks under coverage were divided into three categories:

Overweight- the stock is expected to outperform the average total return of the analyst's coverage universe over the next 12 months.

Equal-Weight- the stock is expected to perform in line with the average total return of the analyst's coverage universe over the next 12 months.

Underweight -the stock is expected to underperform the average total return of the analyst's coverage universe over the next 12 months.

Suspended- the company rating, target price and earnings estimates have been temporarily suspended.

For disclosure purposes, Evercore Group's prior "Overweight," "Equal-Weight" and "Underweight" ratings were viewed as "Buy," "Hold" and "Sell," respectively.

#### Ratings Definitions for Portfolio-Based Coverage

Evercore ISI utilizes an alternate rating system for companies covered by analysts who use a model portfolio-based approach to determine a company's investment recommendation. Covered companies are included or not included as holdings in the analyst's Model Portfolio, and have the following ratings:

**Long-** the stock is a positive holding in the model portfolio; the total forecasted return is expected to be greater than 0%.

**Short-** the stock is a negative holding in the model portfolio; the total forecasted return is expected to be less than 0%.

**No Position-** the stock is not included in the model portfolio.

**Coverage Suspended-** the rating and target price have been removed pursuant to Evercore ISI policy when Evercore is acting in an advisory capacity in a merger or strategic transaction involving this company, and in certain other circumstances; a stock in the model portfolio is removed.

**Rating Suspended** - Evercore ISI has suspended the rating and/or target price for this stock because there is not sufficient fundamental basis for determining, or there are legal, regulatory or policy constraints around publishing, a rating or target price. The previous rating and target price, if any, are no longer in effect for this company and should not be relied upon; a stock in the model portfolio is removed.

Stocks included in the model portfolio will be weighted from 0 to 100% for Long and 0 to -100% for Short. A stock's weight in the portfolio reflects the analyst's degree of conviction in the stock's rating relative to other stocks in the portfolio. The model portfolio may also include a cash component. At any given time the aggregate weight of the stocks included in the portfolio and the cash component must equal 100%.

Stocks assigned ratings under the alternative model portfolio-based coverage system cannot also be rated by Evercore ISI's Current Ratings definitions of Outperform, In Line and Underperform.

**FINRA requires that members who use a ratings system with terms other than "Buy," "Hold/Neutral" and "Sell," to equate their own ratings to these categories. For this purpose, and in the Evercore ISI ratings distribution below, our Long, No Position and Short ratings can be equated to Buy, Hold and Sell respectively.**

#### Evercore ISI rating (as of 08/11/2019)

Coverage Universe			Investment Banking Services   Past 12 Months		
Ratings	Count	Pct.	Ratings	Count	Pct.
Buy	384	51	Buy	253	66
Hold	295	40	Hold	154	52
Sell	40	5	Sell	15	38
Coverage Suspended	21	3	Coverage Suspended	16	76
Rating Suspended	7	1	Rating Suspended	2	29

#### Issuer-Specific Disclosures (as of August 11, 2019)



The analyst(s) or a member of his or her household has a financial interest in the securities of these subject companies American Water Works Company and Inc. (this may include, without limitation, whether it consists of any option, right, warrant, future, long or short position).

#### Price Charts

**American Water Works Company, Inc. Rating History as of 05/07/2019**



**American States Water Company Rating History as of 05/07/2019**



**Connecticut Water Service, Inc. Rating History as of 05/07/2019**





## California Water Service Group Rating History as of 05/07/2019



## SJW Group Rating History as of 05/07/2019



## Aqua America Rating History as of 05/07/2019



## Ratings Key

B	Buy	OP	Outperform	L	Long	CS	Coverage Suspended
H	Hold	IL	In Line	NP	No Position	RS	Rating Suspended
S	Sell	UP	Underperform	S	Short		

## GENERAL DISCLOSURES

This report is approved and/or distributed by Evercore Group L.L.C. ("Evercore Group"), a U.S. licensed broker-dealer regulated by the Financial Industry Regulatory Authority ("FINRA") and by International Strategy & Investment Group (UK) Limited ("ISI UK"), which is authorised and

regulated in the United Kingdom by the Financial Conduct Authority. The institutional sales, trading and research businesses of Evercore Group and ISI UK collectively operate under the global marketing brand name Evercore ISI ("Evercore ISI"). Both Evercore Group and ISI UK are subsidiaries of Evercore Inc. ("Evercore"). The trademarks, logos and service marks shown on this report are registered trademarks of Evercore Inc.

This report is provided for informational purposes only. It is not to be construed as an offer to buy or sell or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy in any jurisdiction. The information and opinions in this report were prepared by employees of affiliates of Evercore. The information herein is believed by Evercore ISI to be reliable and has been obtained from public sources believed to be reliable, but Evercore ISI makes no representation as to the accuracy or completeness of such information. Opinions, estimates and projections in this report constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Evercore or its affiliates and are subject to change without notice. In addition, opinions, estimates and projections in this report may differ from or be contrary to those expressed by other business areas or groups of Evercore and its affiliates. Evercore ISI has no obligation to update, modify or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Facts and views in Evercore ISI research reports and notes have not been reviewed by, and may not reflect information known to, professionals in other Evercore affiliates or business areas, including investment banking personnel.

Evercore ISI does not provide individually tailored investment advice in research reports. This report has been prepared without regard to the particular investments and circumstances of the recipient. The financial instruments discussed in this report may not be suitable for all investors and investors must make their own investment decisions using their own independent advisors as they believe necessary and based upon their specific financial situations and investment objectives. Securities and other financial instruments discussed in this report, or recommended or offered by Evercore ISI, are not insured by the Federal Deposit Insurance Corporation and are not deposits of or other obligations of any insured depository institution. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the price or value of, or the income derived from the financial instrument, and such investor effectively assumes such currency risk. In addition, income from an investment may fluctuate and the price or value of financial instruments described in this report, either directly or indirectly, may rise or fall. Estimates of future performance are based on assumptions that may not be realized. Furthermore, past performance is not necessarily indicative of future performance.

Evercore ISI salespeople, traders and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed in this research. Our asset management affiliates and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

Electronic research is simultaneously available to all clients. This report is provided to Evercore ISI clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Evercore ISI. Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion or information contained in this report (including any investment recommendations, estimates or target prices) without first obtaining express permission from Evercore ISI.

This report is not intended for distribution to, or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

For investors in the UK: In making this report available, Evercore makes no recommendation to buy, sell or otherwise deal in any securities or investments whatsoever and you should neither rely or act upon, directly or indirectly, any of the information contained in this report in respect of any such investment activity. This report is being directed at or distributed to, (a) persons who fall within the definition of Investment Professionals (set out in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order")); (b) persons falling within the definition of high net worth companies, unincorporated associations, etc. (set out in Article 49(2) of the Order); (c) other persons to whom it may otherwise lawfully be communicated (all such persons together being referred to as "relevant persons"). This report must not be acted on or relied on by persons who are not relevant persons.

Applicable current disclosures regarding the subject companies covered in this report are available at the offices of Evercore ISI, and can be obtained by writing to Evercore Group L.L.C., Attn. Compliance, 666 Fifth Avenue, 11th Floor, New York, NY 10103.

In compliance with the European Securities and Markets Authority's Market Abuse Regulation, a list of all Evercore ISI recommendations disseminated in the preceding 12 months for the subject companies herein, may be found at the following site: <https://evercoreisi.mediasterling.com/disclosure>.

© 2019. Evercore Group L.L.C. All rights reserved.